

We claim:

1. A method for tuning an inter-channel chromatic dispersion slope of a train of light transmitted on an optical path on a plurality of channels, comprising the steps of:

5 applying the train of light to a dispersion module on the optical path, the dispersion module having a first dispersion block and a second dispersion block; and while applying the train of light to the dispersion module, changing a mode number of at least one of the dispersion blocks.

2. The method of claim 1, wherein the dispersion blocks each  
10 comprise one or more etalons.

3. The method of claim 1, wherein the changing step is performed using thermal tuning of one or more etalons.

4. The method of claim 1, wherein the changing step is performed using microactuator-driven tuning of one or more etalons.

15 5. The method of claim 1, wherein the dispersion blocks in combination define an intra-channel chromatic dispersion slope profile, and wherein the changing step does not substantially change the combined intra-channel chromatic dispersion slope profile.

6. A method for tuning an inter-channel chromatic dispersion slope of  
20 a train of light transmitted on an optical path on a plurality of channels, comprising the steps of:

applying the train of light to a dispersion module on the optical path, the dispersion module having a first dispersion block and a second dispersion block operative on different mode numbers, the dispersion blocks each having an intra-channel chromatic dispersion slope profile associated therewith; and while

5 applying the train of light to the dispersion module,

symmetrically changing the intra-channel dispersion slope profiles.

7. The method of claim 6, wherein the dispersion blocks each comprise one or more etalons.

8. The method of claim 6, wherein the changing step is performed

10 using thermal tuning of one or more etalons.

9. The method of claim 6, wherein the changing step is performed using microactuator-driven tuning of one or more etalons.

10. The method of claim 6, wherein the dispersion blocks in combination define an intra-channel chromatic dispersion slope profile, and

15 wherein the changing step does not substantially change the combined intra-channel chromatic dispersion slope profile.

11. A method for tuning an inter-channel chromatic dispersion slope of a train of light transmitted on an optical path on a plurality of channels, comprising the steps of:

20 applying the train of light to a dispersion module on the optical path, the dispersion module having a first inter-channel dispersion slope associated therewith; and while applying the train of light to the dispersion module,

adjusting the dispersion module, wherein the adjusted dispersion module has a second inter-channel dispersion slope associated therewith, and wherein the inter-channel dispersion slopes are substantially different.

12. The method of claim 11, wherein the dispersion module has a first dispersion block and a second dispersion block, and wherein the adjusting step comprises changing a mode number of at least one of the dispersion blocks.

13. The method of claim 12, wherein the first and second dispersion blocks each comprise one or more etalons.

14. The method of claim 11, wherein the dispersion module has a first dispersion block and a second dispersion block each having an intra-channel chromatic dispersion slope profile associated therewith, wherein the dispersion blocks are operative on different mode numbers, and wherein the adjusting step comprises symmetrically changing the intra-channel chromatic dispersion slope profiles.

15. The method of claim 14, wherein the dispersion blocks each comprise one or more etalons.

16. The method of claim 11, wherein the adjusting step is performed using thermal tuning of one or more etalons.

17. The method of claim 11, wherein the adjusting step is performed using microactuator-driven tuning of one or more etalons.

18. The method of claim 11, wherein the dispersion module has a first dispersion block and a second dispersion block, wherein the dispersion blocks in

combination define an intra-channel chromatic dispersion slope profile, and wherein the adjusting step does not substantially change the combined intra-channel chromatic dispersion slope profile.

19. A dispersion module for tuning a chromatic dispersion slope of a train of light transmitted on an optical path on a plurality of channels, comprising:

a first dispersion block having a first inter-channel chromatic dispersion profile associated therewith;

a second dispersion block coupled to the first dispersion block along the optical path, the second dispersion block having a second inter-channel chromatic dispersion profile associated therewith, wherein the inter-channel chromatic dispersion profiles in combination define a first inter-channel chromatic dispersion slope; and

adjustment means operative on at least one of the dispersion blocks to change the first inter-channel chromatic dispersion slope into a second inter-channel chromatic dispersion slope.

20. The module of claim 19, wherein the dispersion blocks each comprise one or more etalons.

21. The module of claim 19, wherein the adjustment means comprises a thermal tuner for changing the temperature of one or more etalons.

22. The module of claim 19, wherein the adjustment means comprises a microactuator coupled to one or more etalons.

23. The module of claim 19, wherein the adjustment means changes a mode number of at least one of the dispersion blocks.

24. The module of claim 19, wherein the dispersion blocks each have an intra-channel chromatic dispersion slope profile, wherein the dispersion blocks  
5 are operative on different mode numbers, and wherein the adjustment means symmetrically changes the intra-channel chromatic dispersion slope profiles.

25. The module of claim 19, wherein the dispersion blocks in combination define an intra-channel chromatic dispersion slope profile, and wherein the adjusting step does not substantially change the combined intra-  
10 channel chromatic dispersion slope profile.

15

20